

**ABSTRACT OF Korean Patent Application No. 10-2001-7011708**

The present invention relates to information recording medium and method for manufacturing the same. An information recording medium having a such recording material layer on a substrate where reversible phase transition between electrically or optically detectable can be caused by electric energy or electromagnetic energy. The recording material forming the recording layer is either a material having a crystal structure including lattice defects in one phase of the reversible phase transition of a material having a complex phase composed of a crystal portion including a lattice defect in one phase of the reversible phase transition and an amorphous portion. Both portions contain a common element. A part of the lattice defects are filled with an element other than the element constituting the crystal structure. The recording medium having a recording film exhibits little variation of the recording and reproduction characteristics even after repetition of recording and reproduction excellent weatherability, strong resistance against composition variation, and easily controllable characteristics.







이 낮은 순으로 배열한 것이다. 이 표로부터 No. 25의 S에서 No. 31의 Ba까지가 이 범위에 포함된다. 즉, Sb, Pu, Mg, Al, Ba가 포함되지만, 방사성 원소인 Po, 오직 이론 상에서만 No. Al, Ba 등이 포함된다.

No.	배위수 6의 이온 종류	이온 반경 (Å)	결속열 점 (°C)	배위수 6의 이온 종류	이온 반경 (Å)	결속열 점 (°C)
1	Li <sup>+</sup>	0.76	-13.26	Li <sup>+</sup>	0.76	-13.26
2	Be <sup>2+</sup>	0.45	1820	Be <sup>2+</sup>	0.45	1820
3	B <sup>3+</sup>	0.27	1218	B <sup>3+</sup>	0.27	1218
4	Si <sup>4+</sup>	0.41	1400	Si <sup>4+</sup>	0.41	1400
5	P <sup>5+</sup>	0.35	1218	P <sup>5+</sup>	0.35	1218
6	S <sup>6+</sup>	0.28	1200	S <sup>6+</sup>	0.28	1200
7	Cl <sup>7+</sup>	0.27	1118	Cl <sup>7+</sup>	0.27	1118
8	Ar <sup>8+</sup>	0.24	211	Ar <sup>8+</sup>	0.24	211
9	K <sup>+</sup>	1.33	205.4	K <sup>+</sup>	1.33	205.4
10	Ca <sup>2+</sup>	0.99	1726	Ca <sup>2+</sup>	0.99	1726
11	Sc <sup>3+</sup>	0.74	1365	Sc <sup>3+</sup>	0.74	1365
12	Ti <sup>4+</sup>	0.68	1663	Ti <sup>4+</sup>	0.68	1663
13	V <sup>5+</sup>	0.55	1461	V <sup>5+</sup>	0.55	1461
14	Cr <sup>6+</sup>	0.49	1340	Cr <sup>6+</sup>	0.49	1340
15	Mn <sup>7+</sup>	0.49	1360	Mn <sup>7+</sup>	0.49	1360
16	Fe <sup>6+</sup>	0.49	1360	Fe <sup>6+</sup>	0.49	1360
17	Co <sup>6+</sup>	0.49	1360	Co <sup>6+</sup>	0.49	1360
18	Ni <sup>6+</sup>	0.49	1360	Ni <sup>6+</sup>	0.49	1360
19	Cu <sup>6+</sup>	0.49	1360	Cu <sup>6+</sup>	0.49	1360
20	Zn <sup>6+</sup>	0.49	1360	Zn <sup>6+</sup>	0.49	1360
21	Ga <sup>3+</sup>	0.62	1244	Ga <sup>3+</sup>	0.62	1244
22	Ge <sup>4+</sup>	0.53	1244	Ge <sup>4+</sup>	0.53	1244
23	As <sup>3+</sup>	0.58	1244	As <sup>3+</sup>	0.58	1244
24	Se <sup>4+</sup>	0.58	1244	Se <sup>4+</sup>	0.58	1244
25	Br <sup>3+</sup>	0.62	1244	Br <sup>3+</sup>	0.62	1244
26	Kr <sup>4+</sup>	0.62	1244	Kr <sup>4+</sup>	0.62	1244
27	Rb <sup>+</sup>	1.47	244	Rb <sup>+</sup>	1.47	244
28	Sr <sup>2+</sup>	1.18	244	Sr <sup>2+</sup>	1.18	244
29	Y <sup>3+</sup>	0.90	244	Y <sup>3+</sup>	0.90	244
30	Zr <sup>4+</sup>	0.72	244	Zr <sup>4+</sup>	0.72	244
31	Nb <sup>5+</sup>	0.64	244	Nb <sup>5+</sup>	0.64	244
32	Mo <sup>6+</sup>	0.56	244	Mo <sup>6+</sup>	0.56	244
33	Tc <sup>7+</sup>	0.48	244	Tc <sup>7+</sup>	0.48	244
34	Ru <sup>6+</sup>	0.48	244	Ru <sup>6+</sup>	0.48	244
35	Rh <sup>6+</sup>	0.48	244	Rh <sup>6+</sup>	0.48	244
36	Pd <sup>6+</sup>	0.48	244	Pd <sup>6+</sup>	0.48	244
37	Ag <sup>3+</sup>	0.64	244	Ag <sup>3+</sup>	0.64	244
38	Cd <sup>2+</sup>	0.72	244	Cd <sup>2+</sup>	0.72	244
39	In <sup>3+</sup>	0.80	244	In <sup>3+</sup>	0.80	244
40	Sn <sup>4+</sup>	0.69	244	Sn <sup>4+</sup>	0.69	244
41	Pb <sup>2+</sup>	1.03	244	Pb <sup>2+</sup>	1.03	244
42	Bi <sup>3+</sup>	0.90	244	Bi <sup>3+</sup>	0.90	244
43	Po <sup>4+</sup>	0.72	244	Po <sup>4+</sup>	0.72	244
44	At <sup>5+</sup>	0.64	244	At <sup>5+</sup>	0.64	244
45	Rn <sup>6+</sup>	0.56	244	Rn <sup>6+</sup>	0.56	244
46	Fr <sup>+</sup>	1.36	244	Fr <sup>+</sup>	1.36	244
47	Ra <sup>2+</sup>	1.00	244	Ra <sup>2+</sup>	1.00	244
48	Ac <sup>3+</sup>	0.90	244	Ac <sup>3+</sup>	0.90	244
49	Th <sup>4+</sup>	0.72	244	Th <sup>4+</sup>	0.72	244
50	Pa <sup>5+</sup>	0.64	244	Pa <sup>5+</sup>	0.64	244
51	U <sup>6+</sup>	0.56	244	U <sup>6+</sup>	0.56	244
52	Np <sup>7+</sup>	0.48	244	Np <sup>7+</sup>	0.48	244
53	Pu <sup>7+</sup>	0.48	244	Pu <sup>7+</sup>	0.48	244
54	Am <sup>6+</sup>	0.48	244	Am <sup>6+</sup>	0.48	244
55	Cm <sup>6+</sup>	0.48	244	Cm <sup>6+</sup>	0.48	244
56	Bk <sup>6+</sup>	0.48	244	Bk <sup>6+</sup>	0.48	244
57	Cf <sup>6+</sup>	0.48	244	Cf <sup>6+</sup>	0.48	244
58	Es <sup>6+</sup>	0.48	244	Es <sup>6+</sup>	0.48	244
59	Fm <sup>6+</sup>	0.48	244	Fm <sup>6+</sup>	0.48	244
60	Mendelevium	0.48	244	Mendelevium	0.48	244
61	Nobelium	0.48	244	Nobelium	0.48	244
62	Lanthanum	0.90	244	Lanthanum	0.90	244
63	Cerium	0.90	244	Cerium	0.90	244
64	Praseodymium	0.90	244	Praseodymium	0.90	244
65	Neodymium	0.90	244	Neodymium	0.90	244
66	Europium	0.90	244	Europium	0.90	244
67	Gadolinium	0.90	244	Gadolinium	0.90	244
68	Terbium	0.90	244	Terbium	0.90	244
69	Dysprosium	0.90	244	Dysprosium	0.90	244
70	Ytterbium	0.90	244	Ytterbium	0.90	244
71	Lutetium	0.90	244	Lutetium	0.90	244
72	Hafnium	0.72	244	Hafnium	0.72	244
73	Tantalum	0.64	244	Tantalum	0.64	244
74	Tungsten	0.56	244	Tungsten	0.56	244
75	Rhenium	0.48	244	Rhenium	0.48	244
76	Osmium	0.48	244	Osmium	0.48	244
77	Iridium	0.48	244	Iridium	0.48	244
78	Platinum	0.48	244	Platinum	0.48	244
79	Gold	0.48	244	Gold	0.48	244
80	Mercury	0.48	244	Mercury	0.48	244
81	Thallium	0.48	244	Thallium	0.48	244
82	Lead	0.48	244	Lead	0.48	244
83	Bismuth	0.48	244	Bismuth	0.48	244
84	Polonium	0.48	244	Polonium	0.48	244
85	Astatine	0.48	244	Astatine	0.48	244
86	Radon	0.48	244	Radon	0.48	244
87	Francium	0.48	244	Francium	0.48	244
88	Radium	0.48	244	Radium	0.48	244
89	Actinium	0.48	244	Actinium	0.48	244
90	Thorium	0.48	244	Thorium	0.48	244
91	Protactinium	0.48	244	Protactinium	0.48	244
92	Uranium	0.48	244	Uranium	0.48	244
93	Neptunium	0.48	244	Neptunium	0.48	244
94	Plutonium	0.48	244	Plutonium	0.48	244
95	Americium	0.48	244	Americium	0.48	244
96	Curium	0.48	244	Curium	0.48	244
97	Berkelium	0.48	244	Berkelium	0.48	244
98	Californium	0.48	244	Californium	0.48	244
99	Einsteinium	0.48	244	Einsteinium	0.48	244
100	Fermium	0.48	244	Fermium	0.48	244
101	Mendelevium	0.48	244	Mendelevium	0.48	244
102	Nobelium	0.48	244	Nobelium	0.48	244
103	Lanthanum	0.90	244	Lanthanum	0.90	244
104	Cerium	0.90	244	Cerium	0.90	244
105	Praseodymium	0.90	244	Praseodymium	0.90	244
106	Neodymium	0.90	244	Neodymium	0.90	244
107	Europium	0.90	244	Europium	0.90	244
108	Gadolinium	0.90	244	Gadolinium	0.90	244
109	Terbium	0.90	244	Terbium	0.90	244
110	Dysprosium	0.90	244	Dysprosium	0.90	244
111	Ytterbium	0.90	244	Ytterbium	0.90	244
112	Lutetium	0.90	244	Lutetium	0.90	244
113	Hafnium	0.72	244	Hafnium	0.72	244
114	Tantalum	0.64	244	Tantalum	0.64	244
115	Tungsten	0.56	244	Tungsten	0.56	244
116	Rhenium	0.48	244	Rhenium	0.48	244
117	Osmium	0.48	244	Osmium	0.48	244
118	Iridium	0.48	244	Iridium	0.48	244
119	Platinum	0.48	244	Platinum	0.48	244
120	Gold	0.48	244	Gold	0.48	244
121	Mercury	0.48	244	Mercury	0.48	244
122	Thallium	0.48	244	Thallium	0.48	244
123	Lead	0.48	244	Lead	0.48	244
124	Bismuth	0.48	244	Bismuth	0.48	244
125	Polonium	0.48	244	Polonium	0.48	244
126	Astatine	0.48	244	Astatine	0.48	244
127	Radon	0.48	244	Radon	0.48	244
128	Francium	0.48	244	Francium	0.48	244
129	Radium	0.48	244	Radium	0.48	244
130	Actinium	0.48	244	Actinium	0.48	244
131	Thorium	0.48	244	Thorium	0.48	244
132	Protactinium	0.48	244	Protactinium	0.48	244
133	Uranium	0.48	244	Uranium	0.48	244
134	Neptunium	0.48	244	Neptunium	0.48	244
135	Plutonium	0.48	244	Plutonium	0.48	244
136	Americium	0.48	244	Americium	0.48	244
137	Curium	0.48	244	Curium	0.48	244
138	Berkelium	0.48	244	Berkelium	0.48	244
139	Californium	0.48	244	Californium	0.48	244
140	Einsteinium	0.48	244	Einsteinium	0.48	244
141	Fermium	0.48	244	Fermium	0.48	244
142	Mendelevium	0.48	244	Mendelevium	0.48	244
143	Nobelium	0.48	244	Nobelium	0.48	244
144	Lanthanum	0.90	244	Lanthanum	0.90	244
145	Cerium	0.90	244	Cerium	0.90	244
146	Praseodymium	0.90	244	Praseodymium	0.90	244
147	Neodymium	0.90	244	Neodymium	0.90	244
148	Europium	0.90	244	Europium	0.90	244
149	Gadolinium	0.90	244	Gadolinium	0.90	244
150	Terbium	0.90	244	Terbium	0.90	244
151	Dysprosium	0.90	244	Dysprosium	0.90	244
152	Ytterbium	0.90	244	Ytterbium	0.90	244
153	Lutetium	0.90	244	Lutetium	0.90	244
154	Hafnium	0.72	244	Hafnium	0.72	244
155	Tantalum	0.64	244	Tantalum	0.64	244
156	Tungsten	0.56	244	Tungsten	0.56	244
157	Rhenium	0.48	244	Rhenium	0.48	244
158	Osmium	0.48	244	Osmium	0.48	244
159	Iridium	0.48	244	Iridium	0.48	244
160	Platinum	0.48	244	Platinum	0.48	244
161	Gold	0.48	244	Gold	0.48	244
162	Mercury	0.48	244	Mercury	0.48	244
163	Thallium	0.48	244	Thallium	0.48	244
164	Lead	0.48	244	Lead	0.48	244
165	Bismuth	0.48	244	Bismuth	0.48	244
166	Polonium	0.48	244	Polonium	0.48	244
167	Astatine	0.48	244	Astatine	0.48	244
168	Radon	0.48	244	Radon	0.48	244
169	Francium	0.48	244	Francium	0.48	244
170	Radium	0.48	244	Radium	0.48	244
171	Actinium	0.48	244	Actinium	0.48	244
172	Thorium	0.48	244	Thorium	0.48	244
173	Protactinium	0.48	244	Protactinium	0.48	244
174	Uranium	0.48	244	Uranium	0.48	244
175	Neptunium	0.48	244	Neptunium	0.48	244
176	Plutonium	0.48	244	Plutonium	0.48	244
177	Americium	0.48	244	Americium	0.48	244
178	Curium	0.48	244	Curium	0.48	244
179	Berkelium	0.48	244	Berkelium	0.48	244
180	Californium	0.48	244	Californium	0.48	244
181	Einsteinium	0.48	244	Einsteinium	0.48	244
182	Fermium	0.48	244	Fermium	0.48	244
183	Mendelevium	0.48	244	Mendelevium	0.48	244
184	Nobelium	0.48	244	Nobelium	0.48	244
185	Lanthanum	0.90	244	Lanthanum	0.90	244
186	Cerium	0.90	244	Cerium	0.90	244
187	Praseodymium	0.90	244	Praseodymium	0.90	244
188	Neodymium	0.90	244	Neodymium	0.90	244
189	Europium	0.90	244	Europium	0.90	244
190	Gadolinium	0.90	244	Gadolinium	0.90	244
191	Terbium	0.90	244</			









10월 4일 화요일 10월 5일 수요일 10월 6일 목요일 10월 7일 금요일 10월 8일 토요일 10월 9일 일요일

No.	시정서명	출판년월일	권수	권수	권수
1	국립중앙도서관	1961. 12. 15	105	0.5	0.5
2	국립중앙도서관	1961. 12. 15	105	0.8	0.8
3	국립중앙도서관	1961. 12. 15	105	0.8	0.8
4	국립중앙도서관	1961. 12. 15	105	0.8	0.8
5	국립중앙도서관	1961. 12. 15	105	0.8	0.8
6	국립중앙도서관	1961. 12. 15	105	0.8	0.8
7	국립중앙도서관	1961. 12. 15	105	0.8	0.8
8	국립중앙도서관	1961. 12. 15	105	0.8	0.8
9	국립중앙도서관	1961. 12. 15	105	0.8	0.8
10	국립중앙도서관	1961. 12. 15	105	0.8	0.8
11	국립중앙도서관	1961. 12. 15	105	0.8	0.8
12	국립중앙도서관	1961. 12. 15	105	0.8	0.8
13	국립중앙도서관	1961. 12. 15	105	0.8	0.8
14	국립중앙도서관	1961. 12. 15	105	0.8	0.8

【61】 脚灯景

표면에 깊이 60nm, 폭 0.6μm의 연속 홈을 형성한 경장 120nm, 두께 0.6nm의 폴리코보나이트 디스크 기판 위에 No.9~No.14의 기역각을 포함하는 다층막 구조를 순차 스퍼터링으로 형성하고, 자외선 투과율 측정 후, 레이저 조사에 의하여 기록층을 결정화시켰다.

이들 구성은 모두 광물이고, 기판의 위에, 두께 5nm의 ZnS-SiO<sub>2</sub>: 20nm, 두께 5nm의 ZnS-SiO<sub>2</sub>: 20nm, 두께 90nm의 ZnS-SiO<sub>2</sub>: 20nm, 두께 100nm의 Si 합금층을 적층한 60nm의 구조이다.

[illegible]

포90에서 알 수 있듯이, 7개의 변화에 따라, 적용 가능한 전속도 범위가 연속적으로 임의로 선택되는 것이 나타난다. 또한, 각각의 최대 전속도에 있어서, 모든 디스크가 민첩함을 넘지 못한다.

표9> 재로 조성가능한 신수도 한계

[illegible]

(02 例 20)

2007년에 설명한 장치물 조립했다. 여기서는 표면을 절화 처리한 Si 기판에, 적층으로서 SiC의 다

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참고항 26

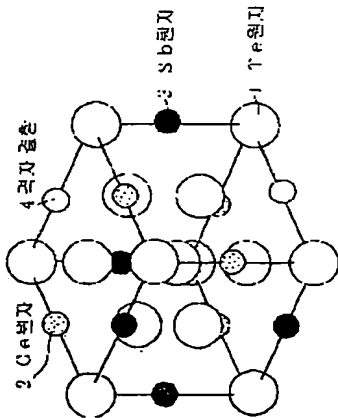
제24항에 있어서, 상기 기록층은 스터티법을 이용하여 형성되고, 상기 스터티법의 스터티 타겟으로서, 삼기 결정구조를 구성하는 원소와 상기 첨가원소를 포함하는 단결정을 이용하는 것을 특징으로 하는 정보기록 매체의 제조방법.

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제24항에 있어서, 스터티 가스층에 N<sub>2</sub> 가스 및 O<sub>2</sub> 가스에서 선택되는 적어도 하나의 가스를 포함시키는 것을 특징으로 하는 정보기록매체의 제조방법.

도면

도면 1



도면 2

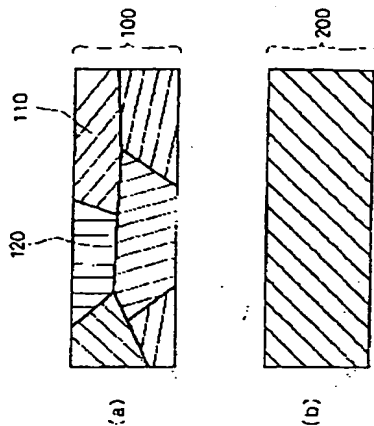


圖 2001-0111276

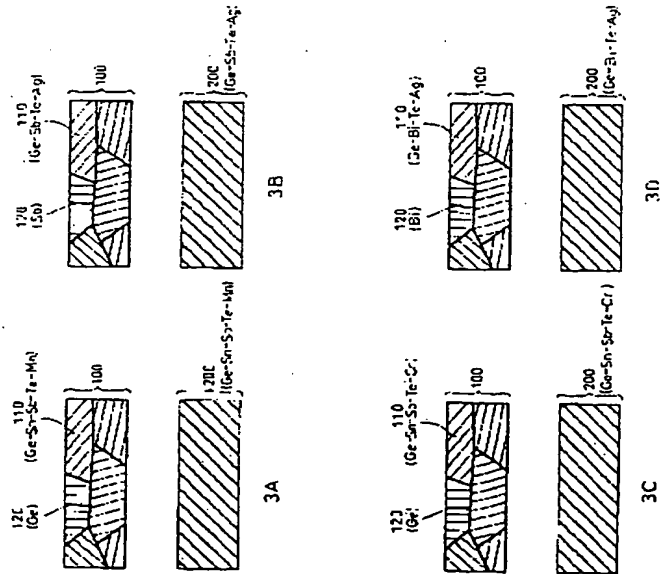
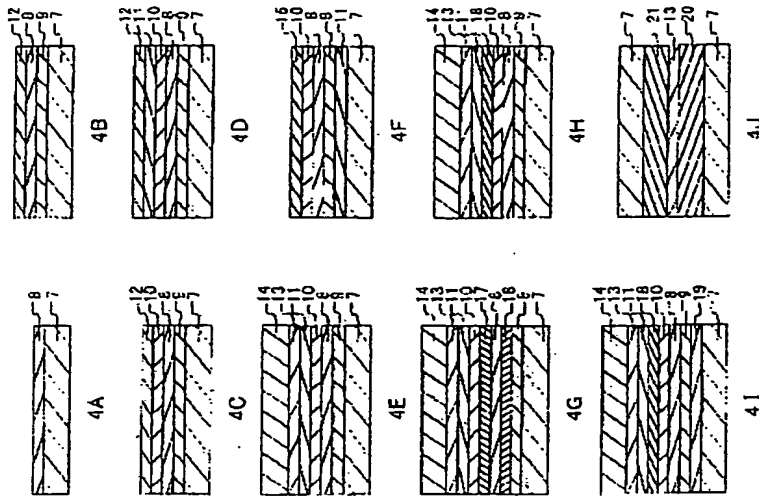
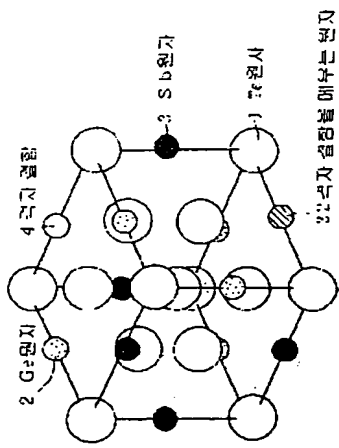


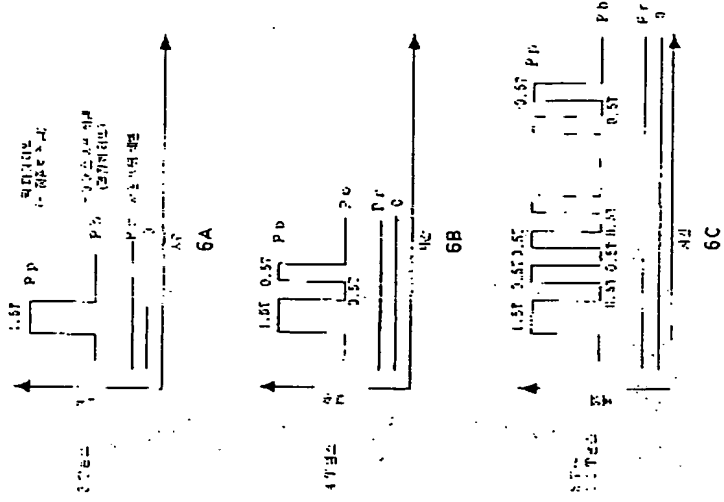
圖 2001-0111276



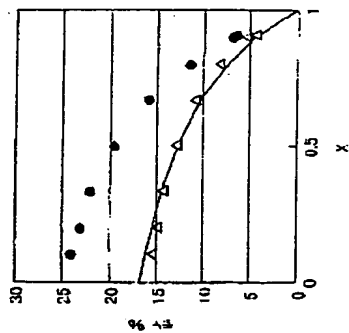
도면5



도면6



5.27



5.28

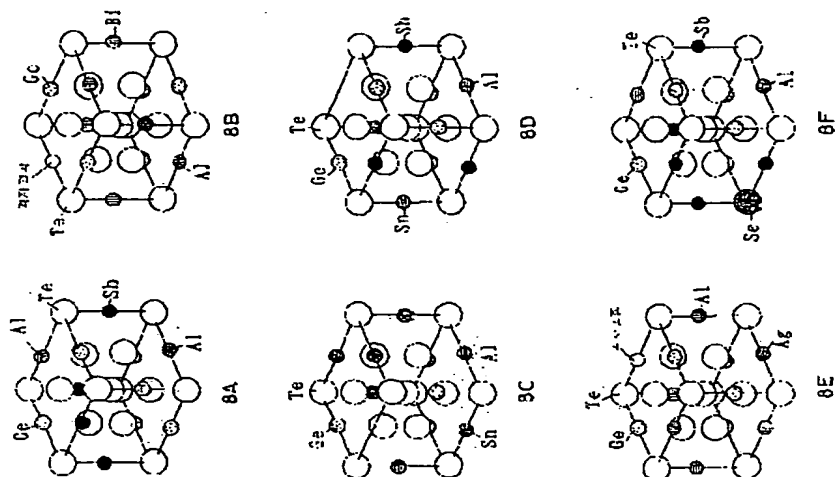
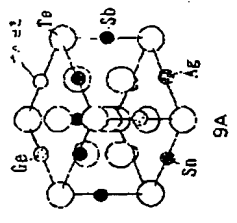
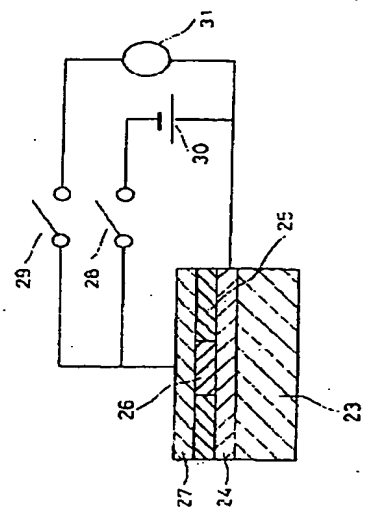


FIG. 9A



9A

FIG. 10



26

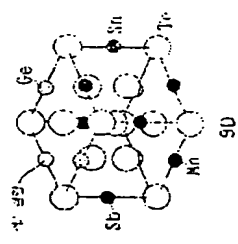
27

24

25

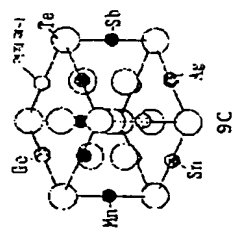
23

9B

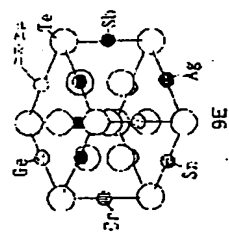


9B

9C



9C



9E

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